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## A REVIEW OF THE GENUS *ETHMIA* WITH DESCRIPTIONS OF NEW SPECIES.

BY HARRISON G. DYAR.

The North American species now referred to the genus *Ethmia* (*Psecadia*) may be separated by the following:

### SYNOPSIS OF SPECIES.

1. Fore wing black with white discal ray.....**albistrigella**  
Fore wing not black.....2
2. Abdomen with basal segment blackish, the rest ochreous, unspotted.....3  
Abdomen ochreous or fuscous, the basal segment concolorous.....4
3. Fore wing gray with four or five black dots.....**fuscipedella**  
Fore wing with black streaks and dashes.....**monticola**
4. Fore wing with a narrow white shade separating the costal gray portion from the lighter inner portion.....5  
Fore wing with uniform ground color, the shade not defined.....7
5. This shade interrupted by two black spots.....6  
This shade not so interrupted.....**mirusella**
6. Lighter colored.....**arctostaphylella**  
Darker colored.....**obscurella**
7. With many black streaks and dashes.....8  
With rounded spots, comparatively few or no dashes.....11
8. Abdomen ochraceous.....9  
Abdomen gray dorsally.....**confusella**
9. Wings uniformly colored.....10  
Wings with costal half dark, inner half light.....**semitenebrella**
10. Fore wings darkly shaded.....**discostrigella**  
Fore wings not darkly shaded.....**subcaerulea**
11. Costal part of wing shaded with black or brown.....12  
Costal part white, at most with blackish irrorationes.....17
12. Costal shade with attached spots covering cell.....13  
Costal shade not covering cell, fused to the discal spots.....**hagenella**
13. Costal shade irregularly edged below, fused to spots.....14  
Costal shade sharply edged below, thrice excavate.....16
14. Costal shade diluted, not continuous.....15  
Costal shade solidly brown.....**semilugens**
15. Abdomen ochraceous.....**josephinella**  
Abdomen pale grayish with tip ochraceous.....**marmorea**
16. Inner marginal area pure white.....**trifurcella**  
Inner marginal area grayish irrorate.....**semiombra**
17. Fore wing with many blackish spots.....18  
Fore wing with only three spots.....**texanella**  
**chambersella**

18. Spots rounded, not produced into dashes.....**apicipunctella**  
 Many of the spots elongated into rounded dashes.....19  
 19. Ground color of fore wing white throughout.....20  
 Fore wing irrorate with black scales on costal third.....**zelleriella**  
 20. Larger; two dashes and spot on outer half of wing centrally are separate.

**longimaculella**

Smaller; these dashes and spot joined into a long dash.....**coranella**

In the following notes on individual species the references are omitted as I have given them in Bulletin 52, U. S. National Museum, which is now in press. The present paper, however, was begun after the Bulletin was in type, so that the result of this work is not included.

**Ethmia albistrigella** Wals.

This species is very distinct with its black wings and narrow white stripe. The dorsal plate of the male genitalia is broadly furcate, the branches wide and rounded. The National Museum has specimens from Placer Co., Cal., June (Koebele); Siskiyou Mts., 6,000 ft. (coll. Walsingham); Palo Alto, Cal. (Dr. William Barnes); Los Angeles, Cal. (Coquillett), and Yosemite Valley, Cal. (Dyar).

**Ethmia fuscipedella** Wals.

This species is likewise unmistakable. The dorsal plate of the male genitalia is broad, widely cleft at tip, the branches rounded. Our localities are Ames, Iowa (Osborn), and West Point, Neb.

**Ethmia monticola** Wals.

A single specimen in poor condition from East Portland, Oregon, May 25, 1892 (Dyar), seems referable here.

**Ethmia arctostaphylella** Wals.

In the male the anal plate is moderately broad, curved over, the broad points well separated and deeply, roundedly incised between. Side pieces broadly strap-shaped, curved inwards and a little upwards. Besides two specimens from Lord Walsingham's collection the National Museum has one from San Bernardino, Cal. (Coquillett).

**Ethmia obscurella** Beut.

Indistinguishable from *arctostaphylella* except by the general darker coloration. The male genitalia show no appreciable differences. We have only Mr. Beutenmüller's types.

**Ethmia mirusella** Chamb.

*Psecadia albicostella* BEUT.

I have one worn specimen of *mirusella* from Lord Walsingham's collection and Mr. Beutenmüller's type of *albicostella*. I can see no

difference between them. Mr. Beutenmüller's type is, unfortunately, a female, not a male, as stated in the original description, so I cannot compare the genitalia. Those of *mirusella* are peculiar. The anal plate ends in a single tapering spine; the side pieces are broad, triangular, the upper angle bent in a rounded projection with four coarse black spines below it.

***Ethmia discostrigella* Chamb.**

Not uncommon in the foothills of the Rocky Mountains, Arizona and southern California. The fore wings have the gray-white ground color thickly overlaid with blackish scales, so that it only appears in streaks along the lower edge of the cell, mixed with the short black dashes. The male genitalia have the anal plate broad, rounded, convex, bent down sharply from the base, broadly cleft at the tip, pale brown and thin; the side pieces are broadly triangular, curved inward at the upper angle.

Huachuca Mts., Ariz., May 8-23 (Barnes); Glenwood Springs, Col. (Barnes); Arizona (Morrison, Walsingham's coll.); Utah, June (Koebele?); Los Angeles, Calif. (Coquillett); Monument Park, Col., July 19, 1877 (Coll. C. V. Riley); Beulah, New Mex. (Cockerell); Fort Grant, Ariz. (Hubbard); Santa Clara [Col.?] June 27, 1875 (Wheeler survey); Manitou, Col., May 2, 1891 (Dyar); Central City, Col. (Caudell); Sedalia, Col., June 15, 1901 (Dyar & Caudell); foothills above Golden, Col., May 13, 1901 (Dyar & Caudell).

***Ethmia semitenebrella*, sp. nov.**

Marked like *discostrigella*, the black streaks larger and more conspicuous, costal half of wing shaded in blackish, inner half nearly pure gray white. This is probably only a variety of the preceding. The distribution is the same. The male genitalia do not differ. U. S. Nat. Mus., type No. 6621.

Fort Grant, Ariz., July 20 (Hubbard); Colorado (coll. Beutenmüller); Huachuca Mts., Ariz., July 1-7 (Barnes); Glenwood Springs, Col., July 24-30 (Barnes); Los Angeles, Calif., Aug. (Coquillett); Chiricahua Mts., Ariz., June 26 (Hubbard); Williams, Ariz., Dept. Agric., No. 9450, July 31, 1901 (E. A. Schwarz).

Under the Department of Agriculture, Insectary number 9450, Mr. Schwarz collected the larvæ on *Cercocarpus parvifolius*. They are of Pyralid shape, moderately slender, cylindrical, tapering a little behind. Feet normal, the abdominal ones long and slender as in

some Pterophorids. Head rounded, flattened before, held flatly, rather thick and not markedly bilobed, apex in joint 2. Whitish, thickly streaked with red brown over the sides and vertex, leaving the face and a streak on the front of the lobe above broadly pale, enclosing a brown dot at tubercle ii; sutures of clypeus brown, mouth sor-did. Body without cornified shields, the tubercles small, marked in velvety black, ia + ib, iia + iib, iv + v on thorax, iv + v on abdomen, vii of three distinct tubercles in a line. Broad whitish dorsal and substigmatal bands, the dorsal one continuous on joints 2 to 13, the substigmatal one obsolete at the ends. Sides finely streaked in blackish, largely transversely so, with traces of a pale subdorsal line and containing large black spots on tubercles i, ii and iii; subventer blackish mottled but less distinctly than the sides and more diffusely; venter grayish shaded except between the feet. Feet all pale, the thoracic ones brownish tinted. The larvæ are in alcohol and I cannot determine whether the general color when living was whitish or greenish. Mr. Schwarz does not recollect what the life habits of the larvæ were.

### ***Ethmia subcærulea* Wals.**

Near to *discostrigella* and perhaps only a local form of that species. The bright gray ground color is only a little obscured by blackish scales. The male genitalia are the same.

Blue Lake, Cal. (coll. Walsingham); San Bernardino, Cal. (Coquillett); Cal. (coll. Beutenmüller); Palo Alto., Cal. (Barnes).

### ***Ethmia confusella* Walk.**

I identify six specimens from Key West, Florida, as this species. The ground color is light gray with very numerous black dashes and dots. The anal plate ends in a single spine. Side pieces broad, rounded, curved inward at the ends, with a curved, thick spine at upper angle, both this spine and the anal spine dark brown.

### ***Ethmia josephinella*, sp. nov.**

Thorax rubbed, the patagia white. Fore wings ochraceous white, the costal half shaded with brown in a dense irroration, its lower edge in the cell composed of a number of large, rounded, confluent spots and a spot on vein 4, above which a projection runs out almost to the margin; four spots below the median vein, somewhat diffuse, and a patch of scales about the middle of the inner margin; a row of terminal dots. Hind wing pale, semitranslucent, dark at tip. Abdomen ochraceous. Expanse, 24 mm.

One male, Dripping Spring, Organ Mts., New Mexico (Cockerell).  
U. S. Nat. Mus., type No. 6622.

The ornamentation is much as in *hagenella*, but more confused. It also much resembles *E. marmorea*, but the genitalia differ markedly. The anal plate ends in a single spine, curved downward; side pieces strap-shaped, curved inward and a little upward, all pale testaceous.

***Ethmia marmorea* Wals.**

In the male genitalia the anal plate is short without central spine, but a long, curved, hair-shaped one at each angle. The side pieces are short, curved inward with a strongly chitinized, finely dentate, black, angulated inner edge that is characteristic and conspicuous. None of the other species of the genus that I have seen have anything like this structure.

Ariz. (coll. C. V. Riley); Glenwood Springs, Col., Aug. 1-15 (Barnes); Huachuca Mts., Ariz., Aug. 8-15 (Barnes); Oregon (coll. Beutenmüller).

***Ethmia semilugens* Zell.**

*Anesychia multipunctella* CHAMB.

*Psecadia semiopaca* GROTE.

*Psecadia plumbeella* BEUT.

Grote's description of *semiopaca* tallies exactly with specimens of *semilugens*. Beutenmüller's type of *plumbeella* is before me and is only a soiled specimen of normal *semilugens*; the plumbeous color is obviously not natural. In the male the anal plate is furcate, the spines separate, parallel, curved down, rather remote. Side pieces strap-shaped, curved inward and upturned, all pale testaceous.

Texas (coll. Beutenmüller); Kerrville, Tex., April (Barnes); Tex. (Belgrave).

***Ethmia trifurcella* Chamb.**

I have not seen this species, but Mr. August Busck has made notes on the type which he has kindly loaned me. It is very much like the following, but with the color on lower half of wing pure white.

***Ethmia semiombra*, sp. nov.**

Head and thorax pale gray, palpi with a black ring on second joint and two on the last joint; a brown dash on posterior vertex of head. Fore wing with the costal part brown, the internal part pale gray, dusted with brownish scales. Limiting line sharp, free of dusting scales, the brown thrice excavated, with a dot in the second and third excavations, that in the second small and before the middle, that in the third

large and centrally situated. The brown color fades toward the costa, partially detaching three brown, rounded dashes in a curved line; a rounded apical patch of pale gray; a terminal row of dots. Hind wings and abdomen brown. Expanse, 20 mm.

Two females, San Diego, Texas, June 12, 1895 (E. A. Schwarz); Brownsville, Texas, June 20, 1895 (C. H. T. Townsend). U. S. Nat. Mus., type No. 6623.

***Ethmia hagenella* Chamb.**

The anal plate of the male appears to end in a single spine; side pieces broadly strap-shaped, very strongly curved upward, when closed, covering the end of the abdomen.

Texas (Chambers' type); Tex. (coll. Beutenmüller); Bennet Co., Tex., March 8, 1891 (Webster).

***Ethmia apicipunctella* Chamb.**

I have not seen this species. Mr. Busck's sketch of the type shows it allied to *longimaculella* and *zelleriella*, but with more rounded, less elongated spots and apparently a different arrangement. The size is as in *coranella*.

***Ethmia coranella*, sp. nov.**

Type of maculation of *longimaculella*, but the dash below cell, spot at end and dash beyond fused into a long bar that reaches the margin. Above this dash and below costal edge are six elongated spots, the last one a basal dash, reaching the costa at base; a spot on fold at base, three spots between fold and inner margin and a rounded one below the center of the long dash; a terminal row of dots. Hind wings white. Expanse, 18 mm.

Three males, Kerrville, Texas (Barnes); Shovel Mt., Texas, June 16-23 (Barnes). U. S. Nat. Mus., type No. 6624.

In the male the anal plate is short and ends in a single, downwardly curved spine, rather slender and pale colored. Side pieces convex, broad, rounded, excavate below with a brush of several stiff spines arising from the excavation and directed transversely.

***Ethmia longimaculella* Chamb.**

*Psecadia walsinghamella* BEUT.

I have but one male specimen of this species and that has lost the abdomen. West Virginia (Beutenmüller's type); Kentucky (Chambers' type); Plattsburgh, N. Y., June 21 and 26, 1888 (Dyar).

***Ethmia zelleriella* Chamb.**

*Hyponomeuta texanella* CHAMB.

I have no male specimen. Our only locality is Texas (Belfrage).

**Ethmia texanella** Chamb.*Ethmia chambersella* DYAR.

Chambers described *Anesychia texanella* on page 179 of the Journ. Cincinnati Soc. Nat. Hist., Vol. II, and *Hyponomeuta texanella* on page 180. Both species prove to belong to *Ethmia* and the latter is a synonym of *E. zelleriella*, leaving the former, earlier name valid. In Bull. 52, U. S. Nat. Mus., I wrongly quoted the later *texanella* as page 2 instead of 180 (an error due to the use of the separately paged copy instead of the full volume and which escaped correction), which caused me to propose a new name for the earlier *texanella* supposing it to be later and invalid. I have a single specimen, without label, which I attribute to this species, but which may possibly not be the same. If not, the name *chambersella* can be used for it. It is white, dusted with brown scales, which form a dot in the cell, one at end of cell and a large one half way between these on the submedian fold; an indistinct submarginal powdering and terminal row of small dots. Expanse, 26 mm.; one female, in poor condition. U. S. Nat. Mus., type No. 6625.

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**A NEW YPONOMEUTA.**

BY HARRISON G. DYAR.

**Yponomeuta atomocella**, sp. nov.

Palpi white, second joint with black dot, third black; thorax white, two black spots before on disk and two behind. Fore wing white with many black spots arranged irregularly in four longitudinal rows, confused beyond the cell and with a row of dots around the margin; fringe red-brown. Hind wings and under side uniformly red-brown. Legs white, fore legs largely black, middle tibiae banded with black. Expanse, 18 mm.

Two specimens, one labelled "LeBaron," the other "Texas, coll. J. B. Smith." The first specimen is also labelled by Riley "*Psecadia atomosella* Riley MS." and another slip written by Zeller, October, 1871, stating that the specimen is, in his opinion, not a *Hyponomeuta* but a *Psecadia*; but in this I cannot concur. I am pleased, however, to adopt Dr. Riley's manuscript specific name. U. S. Nat. Mus., type No. 6614.